

REMARKS

Applicants request reconsideration and reexamination of the above-identified application. The following remarks state Applicant's bases for making this request and are organized according to the Examiner's Action.

The Examiner provides guidelines to illustrate the preferred layout of the Specification of a utility application which is appreciated. The present Specification was originally filed as a PCT International Application (PCT/EP00/04385).

CLAIM OBJECTIONS

1. The Examiner states that Claim 43 is objected to because of the following informalities: line 1, "the or each". The Examiner states that this limitation should be changed to "each" or some other limitation. Applicant has corrected the informality in Claim 43 by changing "the or each" to "each".

CLAIMS REJECTIONS – 35 U.S.C. § 112

2,3. The Examiner states that Claim 36 is rejected under 35 U.S.C. 101 because the claimed invention is not supported by either a clear asserted utility or a well established utility. The Examiner states that Claim 36, "the at least one gaiter may be formed from a synthetic rubber compound formulated to provide a minimum stretch of 550% at break", this limitation is unclear since applicant has failed to disclose a particular material or a material that can perform this (meaning that the applicant has not claimed a particular neoprene rubber compound that is 550% at break). Further, the Examiner states that Claim 36 also is rejected under 35 U.S.C. 112, first paragraph, since the claimed invention is not supported by either a clear asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

Applicant believes that one skilled in the art would be well acquainted with the various characteristics of various synthetic rubber compounds. Therefore, one skilled in the art would know how to formulate a rubber compound to provide the characteristics referred to in Claim 36.

Furthermore, the general teaching of the present application is to rubber gaiters which can fit a range of different joint sizes by virtue of their stretching characteristics. Page 9 of the Specification provides a clear indication of how such gaiters can be made. Therefore, it is submitted that current Claim 36 is supported by the description. In addition, Claim 36 is dependent on Claim 25, and Claim 25 (as amended) is now believed to be patentable.

Applicant wishes to point out that Claims 25-47 have been amended to clearly and distinctly claim the subject matter of the present invention, and the amended claims correspond to the claims granted by the U.K. Patent Office.

4,5. The Examiner states that Claims 27-47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Examiner states that Claims 27-47 depend from canceled claims 1 or 2. For the examination purpose the claims will be dependent from independent claim 25.

Applicant has amended the claims to provide the proper claim dependency. Only Claim 28 is dependent on Claim 26, and the other dependent claims are dependent on Claim 25.

Also, the Examiner states that in Claim 44, line3, "and/or", this language makes the claim indefinite. Applicant has replaced "and/or" with only "or" in Claim 44 to make it definite.

6. The Examiner states that Claim 38 recites the limitation “gaiter rubber” in line 6, and there is insufficient antecedent basis for this limitation in the claim. Applicant has amended Claim 38 to delete “gaiter rubber” and replace it with “rubber compound”. Applicant further amended Claim 38 and believes it is now definite and patentable. Further, Claim 38 is dependent on Claim 25 which Applicant believes is now patentable as amended.

7. The Examiner states that Claims 32, 33 and 35 recite the limitation “the wall” in line 1, and that there is insufficient antecedent basis for this limitation in the claim. Applicant has amended Claims 32, 33 and 35 to provide sufficient antecedent bases for “wall” in each of Claims 32, 33 and 35 and believes that they are now definite and patentable.

CLAIM REJECTIONS – 35 U.S.C. § 102

8,9. The Examiner states that Claims 25-32, 34, 36-37, 39-40, 42-45 and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by Hayward (WO 97/26473).

However, Applicant believes that the present invention is not anticipated by WO 97/26473 (Hayward). The present invention relates to a method of fitting a gaiter to a joint wherein the gaiter is sufficiently stretchable in order that a single gaiter can fit a number of joints of different dimensions.

In contrast, the WO 97/26473 (Hayward) refers to a gaiter which is suitable for fitting to different size shafts. However, within the context of WO 97/26473 stretchable means each gaiter is stretchable in order that it can be fitted to the correspondingly sized joint and not stretchable to fit a range of different joints. While the gaiter can be stretched to fit over different shaft sizes, this is merely a feature to aid fitting, and the gaiter is not suitable to be used with a variety of different shaft sizes.

Furthermore, the stretchable gaiter of the WO 97/26473 (Hayward) must be cut down to fit different sized joints. Therefore, different joints are always fitted with different gaiters.

Further, Applicant has amended independent Claims 25 and 26 to more particularly point out and distinctly claim the subject matter of the present invention. Claim 25 now calls for:

“A method of installing [[a]] gaiters around a range of joints defined between joint members having different dimensions, the method comprising the steps of providing a range of gaiters~~[[,]]~~ having different dimensions in which each end portion of at least one gaiter of the said gaiter range incorporates a respective single annular fitting section or channel, ~~for use with a range of joints of different dimensions~~, the range of joint~~[[s]]~~ dimensions being greater than the range of gaiter~~[[s]]~~ dimensions and at least some of the gaiters in the said gaiter range being stretchable to fit two or more joints of the said joint range so the said joint range can be accommodated by the range of gaiters ~~wherein a gaiter is selected from the gaiter range to fit a particular joint~~ and applying respective gaiters around the joints such that two or more joints of different dimensions have applied thereto gaiters having the same dimensions and which are stretchable as aforesaid.”

Therefore, Applicant believes that independent Claims 25 and 26 as amended are not anticipated from WO 97/26473 (Hayward) and are now patentable. Likewise, dependent Claims 22-32, 34, 36-37, 39-40, 42-45 and 47 as amended which are dependent on either Claims 25 or 26 are now patentable.

CLAIM REJECTIONS – 35 U.S.C. 103

10,11. The Examiner states that Claims 35 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayward in view of Lammin (GB 2,320,067).

The Examiner states that WO 97/26473 (Hayward) discloses the gaiter to have a thickness, but fails to disclose the thickness to be 2mm. Lammin discloses the wall thickness of the bellows being 2mm (page 5, lines 30-33). The Examiner then states that it would have been obvious to one having ordinary skill in the art at the time the invention was made to configure the thickness of the gaiter to be 2mm as taught by Lammin, to provide a specific flexibility (since thickness and flexibility as related as if a piece is thick than less flexibility and vies versa, evidence of this is shown by Gratziani).

Further, the Examiner states that Hayward and Lammin disclose the claimed invention except the thickness to be 3mm. Discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Without the showing of some unexpected result. Since Applicant has not shown some unexpected result the inclusion of this limitation is considered to be a matter of choice in design. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the thickness to be 3mm as a matter of design choice.

Applicant wishes to point out that WO 97/26473 (Hayward) discloses stretchable gaiters wherein one gaiter fits one size of joint. The present invention relates to a gaiter which is sufficiently stretchable both axially and radially in order that one gaiter can fit a range of joint dimensions.

As the Examiner states, WO 97/26473 (Hayward) does not disclose a gaiter having a gaiter thickness of 2mm. However, GB 2320067 (Lammin) refers to a pump seal having a wall thickness of 2mm. The pump seal referred to in GB 2320067 is made from PTFE (page 3, lines 8 to 10). PTFE is a polymeric material rather than a synthetic rubber and will

therefore not possess the degree of stretchability required by the present invention. In fact, lines 1 to 19 of page 6 state that the use of PTFE provides a mid-portion i.e. bellowed portion which is relatively stiff in the radial direction. Therefore, one skilled in the art seeking a radially stretchable material is highly unlikely to look to GB 2320067 as it teaches against radial stretchability. Therefore, one skilled in the art would not glean any advantage in the thickness of the PTFE and therefore, would not transfer this to a synthetic rubber compound. Thus, claims 33 and 35 of the present invention are not obvious in light of the combination of WO 97/26473 and GB 2320067.

Furthermore, the thickness of the gaiter of the present invention is not simply a degree of choice. The thickness is an important aspect of the invention as it is the thickness which contributes to the stretchability of the gaiter and which enables the degree of stretch to be maintained such that one gaiter can fit a range of joint dimensions. Determining a suitable thickness requires inventive merit and is not simply routine experimentation. Therefore, Applicant believes that Claims 33 and 35 are not obvious from Hayward in view of Lammin and further that Claims 33 and 35 are dependent on independent Claim 25 (as amended) which is also nonobvious and patentable. Therefore, Claims 33 and 35 are nonobvious and patentable.

12. The Examiner states that Claims 33 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayward in view of Gratziani (U.S. 5,222,466).

Hayward discloses the gaiter to have a thickness but fails to disclose the thickness to be 3mm. Gratziani discloses the wall thickness of the bellows being to be varied so as to

achieve a specific flexibility (column 6, lines 39-44). It would have been obvious to one having ordinary skill in the art at the time the invention was made to configure the thickness of the gaiter as taught by Gratziani, to provide a specific flexibility (see Gratziani).

The Examiner then states that Hayward and Gratziani disclose the claimed invention except the thickness to be 3mm. The Examiner then states that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Without the showing of some unexpected result. Since Applicant has not shown some unexpected result the inclusion of this limitation is considered to be a matter of choice in design. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the thickness to be 3mm as a matter of design choice.

Regarding Claim 46, the Examiner states that the Hayward discloses the invention substantially as claimed above, but fails to disclose one or more gaiters of the range incorporate a gaiter wall which varies in thickness to alter the flexing characteristics of the respective gaiter(s). Gratziani discloses the gaiter to be a constant thickness or varying thickness (column 6, lines 39-44). It would have been obvious to one having ordinary skill in the art at the time the invention was made to configure the gaiter to be varying thickness as taught by Gratziani, to provide a specific flexibility (column 6, lines 41-42 of Gratziani).

Applicant wishes to point out that in respect of US 5,222,466 (Gratziani), col. 6, lines 10 to 22 refer to flexible bellows composed of a variety of metals. Non-metallic options are suitable, but US 5,222,466 does not refer to a synthetic rubber compound.

Therefore, the situation is as with the combination of WO 97/26473 (Hayward) and

GB 2320067 (Lammin), i.e. one skilled in the art having read WO 97/26473 would not then read US 5,222,466 (Gratziani) and be encouraged to produce a gaiter having a wall thickness of 2 or 3mm as US 2,320,067 refers to a metallic bellows whose degree of stretch would not be sufficient to achieve the stretch required by the present invention.

The Examiner refers to col. 6, lines 39 to 44 of US 5,222,466 as being key. However, this paragraph relates to a varying wall thickness throughout the length of the bellows to provide varying degrees of flexibility. Stretch is quite different from flex.

Therefore, Applicant believes that Claims 33, 35 and 46 of the present invention are not obvious over the combination of WO 97/26473 and US 5,222,466, and furthermore they are dependent on Claim 25 (as amended) which is believed to be nonobvious and patentable.

13. The Examiner states that Claims 36 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayward in view of IBM Technical Disclosure Bulletin, July 1984 (referred to as IBM).

The Examiner states that Hayward discloses the invention substantially as claimed above but fails to disclose the rubber to be neoprene compound having a 550% at break and 115% diameter stretchability without 10% change in the properties of the gaiter rubber (this is the case due to the bellow to be made from neoprene rubber compound). IBM discloses a bellow that is made of neoprene rubber compound (IBM discloses the bellow to be made from the same material as claimed by the applicant, hence IBM bellows has neoprene rubber compound having 550% at break and 115% diameter stretchability without 10% change in the properties of the gaiter rubber). It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the synthetic rubber by a neoprene rubber compound as taught by IBM, to provide uniform thickness or better manufacturing characteristic or flexibility or stretchability (inherent to neoprene and also see IBM).

Applicant points out that the IBM Bulletin discloses "a vacuum-operated pick foot which is supported by a neoprene rubber bellows of critical formulation, allowing the bellows to be transfer molded with very thin (0.01 inch) but uniform thickness walls." However, Claims 36 and 38 (as amended) are dependent on claim 25 (as amended) and Applicant believes that Claim 25 is nonobvious and patentable. Therefore, dependent Claims 36 and 38 are likewise nonobvious and patentable.

14. The Examiner states that Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayward. The Examiner states that Hayward discloses the claimed invention except the said one or both end portions are radially compressible to a compressed diameter which is 98% of the uncompressed respective end portion diameter. Discovering an optimum value of a result effective variable involves only routine skill in the art, In re Boesch, 617 F.2d 272, 204 USPQ 215 (CCPA 1980), without the showing of some unexpected result. Since applicant has not shown some unexpected result the inclusion of this limitation is considered to be a matter of choice in design. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the said one or both end portions are radially compressible to a compressed diameter which is 98% of the uncompressed respective end portion diameter, as a matter of design choice. Furthermore, Hayward discloses the bellows to be compressible.

Applicant wishes to point out that the compression value referred to in claim 41 is not simply a matter of choice. The compression of the gaiter of the present invention is a key aspect of the gaiter in order that the fitting section does not flex, crease or distort thereby preventing leakage of lubricant therefrom. This value was carefully determined in order to

deliver optimum performance of the gaiter. Therefore, Claim 41 is not obvious. Further, Claim 41 is dependent on independent claim 25, as amended, which is believed to be nonobvious and patentable. Therefore, Claim 41 is nonobvious and patentable.

In view of the above, it is submitted that Claims 1-47 as amended are now in condition for allowance. Reconsideration of the objections and rejections to such Claims is respectfully requested. Accordingly, it is requested that Claims 1-47 be allowed and the case be sent to issue.

If there are any questions, we urge the Examiner to call us. Please charge any costs in connection with this document to our Deposit Account No. 16-0875.

Respectfully Submitted,
PEARSON & PEARSON, LLP

By



WALTER F. DAWSON, Attorney,
Reg. No. 30,046
10 George Street
Lowell, Massachusetts 01852
(978) 452-1971

P:\DATA\M\Caw\32860\PTO\Amend-1-PTO